AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (*canceled*)

2. (*currently amended*) ~~An apparatus~~The machine as defined in claim ~~1~~19, the fractionating means further comprising a slurry fractionation port providing fluid communication between the slurry delivery conduit and at least one of the chute section and the hollow connector section, and valve means for opening and closing said slurry fractionation port.

3. (*currently amended*) ~~An apparatus~~The machine as defined in claim 2, the fractionating means further comprising a casing which encloses the slurry fractionation port and the valve means and which has a slurry delivery port, wherein said slurry delivery conduit is connected to said slurry delivery port so as to be in fluid communication with said ~~the~~ slurry fractionation port through an internal area of the casing.

4. (*currently amended*) ~~An apparatus~~The machine as defined in claim 18, ~~wherein~~ further comprising a foam feeding port, which adds foam or foaming agent to the gypsum slurry for regulating density of the slurry, ~~is~~ disposed on at least one of said hollow connector section ~~and/or~~and said chute section.

5. (*currently amended*) ~~An apparatus~~The machine as defined in claim 4, wherein said foam feeding port is disposed ~~between~~ on a downstream side of said slurry fractionation port ~~and said discharge port~~.

6. (*currently amended*) ~~An apparatus~~The machine as defined in claim 5, wherein both of said foam feeding port and said slurry fractionation port are disposed on said chute section, and the slurry fractionation port is located, upstream of the foam feeding port in a direction of flow of the slurry.

7. (*currently amended*) ~~An apparatus~~The machine as defined in claim ~~1~~19, the fractionating means further comprising a slurry fractionation port providing fluid communication between the slurry delivery conduit and at least one of the chute section and the hollow connector section, wherein said slurry fractionation port is disposed on a top wall of at least one of said chute section ~~and/or~~and said hollow connector section.

8. (*currently amended*) ~~An apparatus~~The machine as defined in claim 2, further comprising a driving device and drive control means for operating said valve means to open or close.

9. (*currently amended*) A method for fractionating gypsum slurry with use of the ~~apparatus~~ machine as defined in claim ~~1~~19, wherein the fractionating means further comprises a slurry fractionation port providing fluid communication between the slurry delivery conduit and at least one of the chute section and the hollow connector section, and wherein a part of the gypsum slurry in at least one of said chute section ~~and/or~~and said hollow connector section is delivered through said slurry fractionation port to said slurry delivery conduit under fluid pressure of the gypsum slurry.

10. (*currently amended*) A method for fractionating gypsum slurry with use of the ~~apparatus~~ machine as defined in claim ~~1~~19, wherein the fractionating means further comprises a slurry fractionation port providing fluid communication between the slurry delivery conduit and at least one of the chute section and the hollow connector section, and wherein a part of the gypsum slurry limited in a content of the foam or foaming agent is delivered through said slurry fractionation port to said slurry delivery conduit.

11. (*currently amended*) A method for fractionating gypsum slurry with use of the ~~apparatus~~ machine as defined in claim 2, wherein a fluid passage between said slurry delivery conduit and at least one of said chute ~~or~~ and said hollow connector section is periodically closed or opened by closing and opening operation of said valve means so as to prevent growth of a mass of set slurry in a fluid passage of the fractionated slurry.

12. (*currently amended*) A method for fractionating gypsum slurry with use of the ~~apparatus~~ machine as defined in claim 2, wherein pressure of the slurry fractionated through said slurry fractionation port is controlled by said valve means.

13. (*currently amended*) A method for producing gypsum boards ~~with use of a mixer for mixing calcined gypsum and water in its mixing area to prepare gypsum slurry, and an apparatus for fractionating the gypsum slurry to be fed to a slurry delivery conduit:~~ using the machine as defined in claim 19, comprising:

a slurry preparing step of feeding the calcined gypsum and water into the mixer to mix them therein for preparation of the gypsum slurry and displacing the gypsum slurry from a hollow connector section to a chute section;

a slurry fractionating step of causing a part of the slurry effluent from said mixing area to be fractionated in at least one of said chute section ~~and/or~~and said hollow ~~onnector~~ connector section as fractionated slurry, and feeding the fractionated slurry through said conduit to at least one of a roll coater ~~and/or~~and a side edge portion of a sheet of paper for gypsum board liner; and

a slurry discharging step of discharging a remainder of the gypsum slurry, from which the fractionated slurry has been fractionated, through a slurry discharge port of the chute section onto a center part of the sheet of paper for gypsum board liner, wherein at least one of a core of an edge portion of the gypsum board ~~and/or~~and an interface portion between a core and the sheet of paper for gypsum board liner is formed by said fractionated slurry.

14. (*currently amended*) ~~A~~ The method as defined in claim 13, wherein foam or foaming agent for regulating density of slurry is mixed into said remainder of the gypsum slurry after the fractionated slurry has been fractionated.

15. (*currently amended*) ~~A~~ The method as defined in claim 13, further comprising a fractionated slurry agitating step of agitating said fractionated slurry with use of a slurry agitator.

16. (*canceled*)

17. (*currently amended*) A method for producing gypsum boards ~~with use of the apparatus as defined in claim 1:~~ using the machine as defined in claim 19, comprising:

a slurry preparing step of feeding the calcined gypsum and water into said mixer to mix them therein for preparation of the gypsum slurry and displacing the gypsum slurry from said hollow connector section to said chute section;

a slurry fractionating step of causing a part of the slurry effluent from said mixing area to be fractionated in at least one of said chute section ~~and/or~~ and said hollow connector section as fractionated slurry, and feeding the fractionated slurry through said conduit to at least one of a roll coater ~~and/or~~and a side edge portion of said sheet of paper for gypsum board liner; and

a slurry discharging step of discharging a remainder of the gypsum slurry, from which the fractionated slurry has been fractionated, through said slurry discharge port of the chute section onto a center part of the sheet of paper for gypsum board liner, wherein at least one of a core of an edge portion of the gypsum board ~~and/or~~and an interface portion between a core and the sheet of paper for gypsum board liner is formed by said fractionated slurry.

18. (*currently amended*) ~~A~~ The method as defined in claim 14, further comprising a fractionated slurry agitating step of agitating said fractionated slurry with use of a slurry agitator.

19. (*new*) A machine for manufacturing gypsum board with a gypsum core covered with a sheet of paper for gypsum board liner, comprising:

a chute section having a slurry discharge port for feeding gypsum slurry to a sheet of paper for gypsum board liner;

a mixer having a housing and a mixing area therein for the mixing of calcined gypsum and water for preparation of a gypsum slurry;

a hollow connector section providing communication between the mixing area and the chute section for continuous flow of the gypsum slurry from the mixing area into the chute section;

a slurry delivery conduit; and

fractionating means provided on the mixer for receiving a part of the gypsum slurry from the mixer through at least one of the chute section and the hollow connector section, fractionating the received gypsum slurry, and delivering the fractionated gypsum slurry to the slurry delivery conduit for feeding to said sheet of paper.